



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,192	07/06/2001	Takashi Kisaichi	OKI.250	2695

7590 07/22/2004

JONES VOLENTINE, L.L.P.
Suite 150
12200 Sunrise Vally Drive
Reston, VA 20191

EXAMINER

MACARTHUR, SYLVIA

ART UNIT	PAPER NUMBER
----------	--------------

1763

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AC

Office Action Summary**Application No.**

09/899,192

Applicant(s)

KISAICHI, TAKASHI

Examiner

Sylvia R MacArthur

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8,13-16 and 24-28 is/are allowed.
- 6) ☒ Claim(s) 1-7,9-12 and 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 9-12, and 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moslehi et al (US 6,073,576) in view of Applicant's admitted prior art (AAPA), specifically pages 1-3 and Figs. 6-8.

Moslehi et al (US 6,073,576) teaches a wafer support 174 that has a tapered lateral side that supports an edge of a wafer from below the wafer. Moslehi further teaches a stage 112 on which the wafer is placed. The stage has an upper face.

Regarding claims 1 and 17: Moslehi fails to teach wafer clamps as discussed by the claimed invention.

AAPA teaches wafer clamps 16. The motivation to modify the apparatus of Moslehi with the wafer clamps of the AAPA is that the clamps ensure wafer support and inhibit damage due to the wafer moving during processing. Note AAPA namely page 2 lines 12-15 teaches that the wafer 14 is pressed from above by clamps 16, as a result the wafer 14 is fixed to the electrode. This statement reads upon the limitation requiring that the clamps push a perimeter of the wafer from above the wafer to adjust a position of wafer to fix on the stage of Moslehi.

Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to modify the apparatus of Moslehi with the wafer clamps of the AAPA.

Regarding claims 2 and 18: AAPA teaches a holder 18 accommodates the wafer clamps. The method of Moslehi comprises wafer clamps inside the holders.

Regarding claims 3, 19, and 20: The holder of AAPA is tubular as illustrated in Fig. 6. Screw 20 attaches the holder to the screw. Seat 22 accommodates the holder, the seat is also tubular.

Regarding claims 4-7 and 21-23: The holder 18 is also attached to the seat 22 by a screw 24.

Regarding claim 9: Fig. 2 and 5 of Moslehi teach that the wafer is placed on a stage supporting a center portion of the wafer 14 from below the wafer 14.

Regarding claim 10: Page 1 line 19 of the specification depicting the AAPA cites that the stage is an electrode.

Regarding claim 11 and 12: The stage of Moslehi accommodates a chuck for placing the wafer on the stage. Figs 2 and 5 illustrate that the stage has a cylindrical shape having a hollow portion and accommodates the chuck in the hollow portion.

Allowable Subject Matter

3. Claims 8, 13-16, and 24-28 are allowable.

The prior art of record fails to teach a positioning jig.

Response to Arguments

4. Applicant's arguments filed 5/5/2004 have been fully considered but they are not persuasive. Applicant argues that the combination of Moslehi and AAPA fails to suggest that the

clamps do not adjust a position of the wafer 14. However, applicant is asked to review page 2 lines 12-15 of the specification (also known as AAPA) therein the wafer 14 is pressed from above by clamps 16, as a result the wafer 14 is fixed to the electrode. This statement reads upon the limitation requiring that the clamps push a perimeter of the wafer from above the wafer to adjust a position of wafer to fix on the stage of Moslehi.

Conclusion


5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-F during the core hours of 8 a.m. and 2 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills can be reached on 703-308-1633. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sylvia R MacArthur
Patent Examiner
Art Unit 1763

July 16, 2004


GREGORY MILLS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700